



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,214	03/22/2004	Mark Lynn Jenson	1327.008us2	3294

40064 7590 06/03/2005

LEMAIRE PATENT LAW FIRM, P.L.L.C.  
PO BOX 11358  
ST PAUL, MN 55111

EXAMINER

CREPEAU, JONATHAN

ART UNIT	PAPER NUMBER
----------	--------------

1746

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/807,214

Applicant(s)

JENSON ET AL.

Examiner

Jonathan S. Crepeau

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 21-62 is/are pending in the application.
- 4a) Of the above claim(s) 1-12 and 42-54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-41 and 55-62 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/10/05, 11/30/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Group II, claims 21-41 and 55-61 in the reply filed on March 10, 2005 is acknowledged. The traversal is on the ground(s) that claim 42 is a linking claim that links the inventions. This is not found persuasive because claim 42 is an apparatus claim that does not positively require the presence of a battery and a capacitor. The preamble of the claim is "An apparatus for making a combined battery and device apparatus." Thus, the intended use of the device is to make a combined battery and device apparatus, which is given little weight (MPEP 2111). The claim then recites "means for depositing a plurality of thin-film layers," which is interpreted in accordance with 35 USC 112, sixth paragraph. The next recitation, "the plurality of layers forming a solid-state battery and capacitor," is also given little weight because it defines the product made by the apparatus. Pursuant to MPEP 2115, such recitations do not further define the structure of a claimed apparatus. As such, claim 42 does not positively recite a battery and capacitor combination, and as such, does not constitute a linking claim linking the claimed inventions.

The requirement is still deemed proper and is therefore made FINAL.

***Information Disclosure Statement***

2. The Doble et al. publication listed on page 5 the IDS filed on 11/30/04 has not been considered because no date has been supplied. If a publication or retrieval date is supplied, the reference will be made of record.

***Claim Suggestions***

3. Applicant is advised that should claim 32 be found allowable, claim 33 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). It is further noted that in claim 32, "an insulating layer" is defined twice, once in line 2 and again in line 4. The second recitation appears to be redundant.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 21-29, 31, 35, and 60 are rejected under 35 U.S.C. 102(b) as being anticipated by Thomas et al (U.S. Patent 5,849,426). The reference teaches a hybrid energy system (50) comprising a plurality of batteries (66) integrated with a capacitor (80) into a housing (52, 54). Either portion of the housing may be considered a “substrate” as recited in the instant claims and as such, either the capacitor may be deposited on the substrate (52) and the battery deposited on top of the capacitor, or the battery may be deposited on the substrate (54) and the capacitor deposited on top of the battery. Regarding claims 24 and 25, an integrated circuit would inherently be contained in the portable communication device (100), which is electrically attached via traces (102) to the battery through an insulating layer (54).

Thus, the instant claims are anticipated.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 36 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas et al.

The reference is applied to claims 21-29, 31, 35, and 60 for the reasons stated above.

However, the reference does not expressly teach that the substrate comprises a polymer having a melting point substantially below 700 degrees Centigrade, as recited in claims 36 and 55.

However, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the selection of such a polymer as the housing material of Thomas would be an obvious modification. Portable electronic devices are commonly housed in plastic cases, and as such, the selection of such a material for use in Thomas et al. would be obvious to a skilled artisan.

8. Claims 21-23, 28-30, 35, 37, and 55-62 rejected under 35 U.S.C. 103(a) as being unpatentable over Meitav et al (U.S. Patent 6,576,365). The reference is directed to an assembly wherein a plurality of electrochemical cells (comprising electrodes 48 and electrolytes 50) are stacked vertically and horizontally (see Fig. 5). Cells are disposed horizontally adjacent to each other on a substrate (32). The substrate can be a conductive polymer or metal foil (see col. 6, line 54).

The reference does not expressly teach that a battery and a capacitor are located next to each other either in a vertical or horizontal direction as recited in the instant claims. However, the reference teaches in column 1, line 30 that “further, the present invention is more versatile for achieving inter-cell or inter-stack connections in series, parallel, or combinations thereof and for

Art Unit: 1746

achieving hybrid packs of a battery or batteries combined with a capacitor or capacitors in a single package.” As such, this passage provides sufficient guidance for the artisan to create hybrid systems of batteries and capacitors using the various cells of Meitav et al. Therefore, the use of any combination of batteries and capacitors within a two-dimensional array shown in Fig. 5 of Meitav would be rendered obvious to the skilled artisan.

The reference further does not teach that the assembly is curved so as to have a concave face and a convex face, as recited in claims 35 and 60-62. However, it has been held that changes in shape are generally not patentably significant unless a new or unexpected result is achieved (MPEP 2144.04). As such, the claimed configuration is not considered to distinguish over the reference.

The reference further does not expressly teach the substrate species recited in claims 57-59. However, at column 7, line 23, the reference teaches the following:

**Alternatively, the common and terminal current collectors 20 and 22 may comprise any number of layers. The combination of layers and materials may be adjusted to achieve a desired combination of features including stability, lateral conductivity, interfacial contact resistance with the conductive polymer layer, pressure insensitivity, solderability, creep, passivation, contact resistance, and permeability to the electrolyte, as well as, achieving the desired performance characteristics of the overall energy storage component.**

Thus, it is seen that the reference contemplates a wide variety of materials and configurations for the substrate/current collectors. As such, the claimed materials would be rendered obvious by the reference.

### ***Double Patenting***

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 21, 22, 24-28, 30-41, and 55-62 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 31-67 and 88-100 of U.S. Patent No. 6,805,998. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the '998 patent anticipate the instant claims (note particularly claims 33, 34, and 100 of the '998 patent). It is further recognized that the instant application is a "division" of the '998 patent and that an election of species was made in the parent application between the photovoltaic cell and the capacitor. However, Applicant voluntarily amended the claims of the parent application so that the capacitor claims *depended from* the photovoltaic cell claims. Thus, the original basis for the election of species was removed, and an obviousness-type double patenting rejection over the claims of the '998 patent is believed to be proper.



***Allowable Subject Matter***

11. Claims 32-34 and 38-41 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and if the obviousness-type double patenting rejection was obviated.

12. The following is a statement of reasons for the indication of allowable subject matter:

Neither Meitav et al. nor Thomas et al. teach or fairly suggest the configurations recited in the instant claims. In particular, the Meitav reference does not disclose an integrated circuit nor an insulating layer on the battery or capacitor. The Thomas reference, while it can be considered to teach an insulating layer (54) and an integrated circuit (100), does not fairly suggest the configurations recited in claims 32-34, in particular the step of depositing a cathode-conductor of the battery on the insulating layer.

***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Crepeau whose telephone number is (571) 272-1299. The examiner can normally be reached Monday-Friday from 9:30 AM - 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr, can be reached at (571) 272-1414. The phone number for the

Art Unit: 1746

organization where this application or proceeding is assigned is (571) 272-1700. Documents may be faxed to the central fax server at (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jonathan Crepeau  
Primary Examiner  
Art Unit 1746  
May 27, 2005